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 MEMORY, INC.

UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA
 SAN FRANCISCO DIVISION

ASETEK DANMARK A/S,

 Plaintiff and
 Counter-defendant,

 v.
 COOLIT SYSTEMS, INC.,

 Defendant and
 Counter-claimant,

 CORSAIR GAMING, INC. and CORSAIR
 MEMORY, INC.,

 Defendants.

Case No. 3:19-cv-00410-EMC

**DEFENDANTS' NOTICE OF MOTION AND
 MOTION TO EXCLUDE THE EXPERT
 REPORT OF DR. CARL-FREDRIK STEIN
 REGARDING PUMP IMPELLER DESIGNS
 AND PERFORMANCES**

Date: May 5, 2022
 Time: 1:30 pm
 Location: Courtroom 5, 17th Floor
 Judge: Hon. Edward M. Chen

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NOTICE OF MOTION AND DAUBERT MOTION

TO ALL PARTIES AND THEIR RESPECTIVE ATTORNEYS OF RECORDS:

PLEASE TAKE NOTICE that on May 5, 2022 at 1:30 p.m., or as soon thereafter as the matter may be heard, in this Court, located at San Francisco Courthouse, Courtroom 5 – 17th Floor, 450 Golden Gate Ave., San Francisco, CA 94102, Defendants CoolIT Systems, Inc., Corsair Gaming, Inc., and Corsair Memory, Inc. will and hereby do move the Court for an order excluding the Expert Report of Dr. Carl-Fredrik Stein Regarding Pump Impeller Designs and Performance. This motion is based upon this notice of motion and motion, the attached memorandum, the accompanying declaration of Reuben H. Chen and exhibits thereto, and upon such other and further matters, papers, and arguments as may be submitted to the Court at or before the hearing on this motion.

I. INTRODUCTION

The Expert Report of Dr. Carl-Fredrik Stein Regarding Pump Impeller Designs and Performances (“Stein Impeller Report”), wherein Dr. Stein opines on “curved” versus “straight” impeller blades, should be excluded in its entirety for at least the following reasons:

- (1) Dr. Stein admitted that he never simulated or otherwise analyzed the actual accused CoolIT devices, and thus his opinions on some fictional, *non-CoolIT* device are irrelevant and unreliable; and
- (2) Dr. Stein’s simulation of the “curved” blades in the *non-CoolIT* device additionally did not just add curvature to the purported CoolIT blades—he admittedly added length to each blade, and flipped the tips of the blades—so his comparison cannot be attributed to only the difference between the “curved” and “straight” blades, which further makes his opinions unreliable.^{1, 2}

II. FACTUAL BACKGROUND

A. History of the dispute

Asetek first asserted U.S. Patent No. 8,240,362 (the “’362 patent”) against CoolIT in 2012. That case ended with a confidential settlement in 2015. Towards the end of the case, CoolIT designed a new impeller with straight blades and informed Asetek of the non-infringing design. (Declaration of Reuben Chen (“Chen Decl.”) Ex.³ 1.) Nearly four years later, Asetek brought this suit against CoolIT. Since CoolIT’s blades are admittedly *not* “curved,” Asetek’s theory is limited to infringement under the doctrine-of-equivalents.

B. The disputed “curved blades” limitation was critical to patentability

The remaining asserted ’362 patent claims all include “curved” impeller blades that circulate cooling liquid to keep computer chips from overheating. (See ’362 patent, claims 17, 19 (the

¹ A separate Daubert Motion to exclude portions of Dr. Tuckerman’s report that relies on Dr. Stein’s report is filed concurrently herewith.

² A separate Motion for Summary Judgment including the related “curved” versus “straight” issue is also filed concurrently herewith.

³ All references to “Ex.” refer to exhibits to the Chen Declaration, filed concurrently herewith.

1 remaining asserted claims).⁴

2 17. A method of operating a liquid cooling system for an electronic component
3 positioned on a motherboard of a computer system, comprising:

4 separably thermally coupling a heat exchanging interface of a reservoir with the
5 electronic component positioned at a first location on the motherboard, the reservoir
6 including an upper chamber and a lower chamber, the upper chamber and the lower
7 chamber being separate chambers that are vertically spaced apart and separated by
8 at least a horizontal wall, the upper chamber and the lower chamber being fluidly
9 coupled by one or more passageways, at least one of the one or more passageways
10 being positioned on the horizontal wall, the heat exchanging interface being
11 removably coupled to the reservoir such that an inside surface of the heat
12 exchanging interface is exposed to the lower chamber of the reservoir;

13 positioning a heat radiator at a second location horizontally spaced apart from the
14 first location, the heat radiator and the reservoir being fluidly coupled together by
15 tubing that extends from the first location to the second location;

16 activating a pump to circulate a cooling liquid through the reservoir and the heat
17 radiator, the pump including a motor and an impeller having curved blades, the
18 impeller being positioned in the reservoir; and

19 activating a fan to direct air through the heat radiator, the fan being operated by a
20 motor separate from the motor of the pump.⁵

21 Asetek added this limitation during prosecution of its parent patent to avoid prior art. (*See, e.g.*, Ex.
22 2 (U.S. Patent No. 7,971,632 file history, December 18, 2008 Amendment) at 4, 15-17 (adding “curved
23 blades”).)

24
25
26
27 ⁴ See ECF No. 1-1 for U.S. Patent No. 8,240,362 (“’362 patent”).

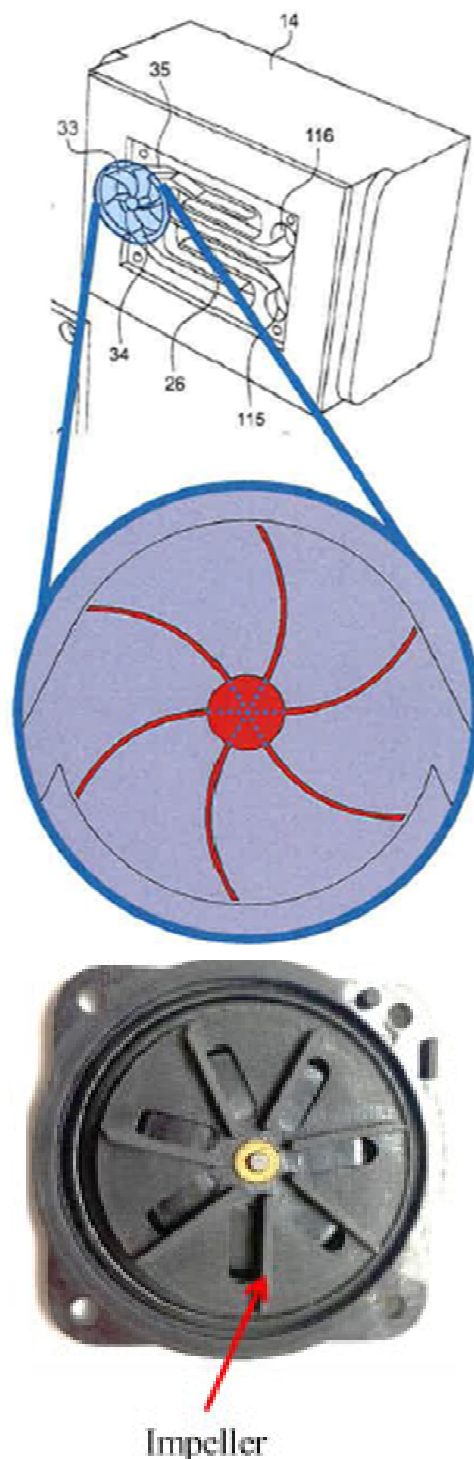
28 ⁵ Dependent claim 19 does not add any limitations relevant to this motion.

C. The '362 patent requires “curved blades,” but CoolIT’s products have straight blades

The only embodiment in the '362 patent showing an impeller with blades is FIG. 15. (Ex. 3 (12/8/2021 Abraham Rep.), ¶105 (annotated excerpt of FIG. 15 (rotated 90° CW)), reproduced at right.)

The file history of the '362 patent and the lengthy file history of its parent application (with 7 office action rejections over 5 years) bear emphasizing because they show that the claims of the '362 patent were issued on *very narrow* grounds over prior art in a crowded field. In particular, during prosecution of the parent application, Asetek amended its claims to include “an impeller having a plurality of curved blades,” and argued that the impellers in prior art references, such as Batchelder, Chu, and Alvaro, did “not disclose” that the impeller [has] a plurality of curved blades[.]” (Ex. 2 (12/18/2008 Reply to Office Action) at 4, 15-17.⁶)

In the accused CoolIT products (including both H100i and Tamriel), the impeller does not have “curved blades.” Rather, it has straight blades (as shown on the right). (Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), ¶69 (excerpt).) Asetek’s expert concedes that the blades in CoolIT’s impeller



⁶ The Examiner subsequently found that another reference, Chou, disclosed the limitation of an “impeller having a plurality of curved blades[.]” (Ex. 4 (3/20/2009 Office Action, Final Rejection) at 4.) Asetek then amended its claims to recite a “reservoir comprising an upper chamber and a lower chamber, the upper chamber and the lower chamber being separate chambers that are fluidly coupled together by an inlet passage and an outlet passage[.]” (Ex. 5 (4/4/2011 Reply to Office Action) at 4.) Notably, the claims were allowed not because the Examiner-identified prior art lacked a “reservoir,” but because it did “not disclose any inlet and outlet passage to connect the upper and the lower chamber.” (Ex. 6 (4/8/2011 Notice of Allowance) at 2.)

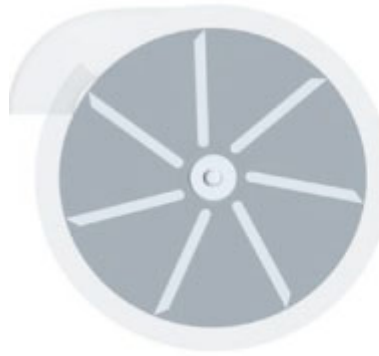
are not curved. (*See id.*, ¶¶290, 321 (admitting that “the blades in the impeller of the H100i Liquid Cooler [and Tamriel design] are not literally curved”).)

D. Dr. Stein never analyzed CoolIT’s actual impeller

Dr. Stein admitted that his analysis *was not* based on CoolIT’s products. According to Dr. Stein, “[w]e do *not* claim to simulate CoolIT’s device.” (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 120:8-9 (emphasis added).)

Indeed, the impeller simulated by Dr. Stein (below left) is demonstratively and indisputably different from the actual CoolIT impeller (below right). (*Compare* Ex. 9 (11/3/2021 Stein Rep.), ¶13 (below left, impeller simulated by Dr. Stein) *with* Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), ¶310 (below right, annotated photo of actual CoolIT impeller).)

As shown, at a minimum, the actual CoolIT impeller has an opening (annotated in red) alongside each of the seven blades, through which the liquid can pass, while the purported “CoolIT” impeller simulated by Dr. Stein has no opening alongside any of its blades.



Impeller simulated by
Dr. Stein



Actual CoolIT Impeller
(red annotation added)

E. Dr. Stein admitted that, on top of curvature, he added length to each of the purported equivalent blades

Beyond admitting that he does “not claim to simulate the CoolIT device” (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 120:8-9), Dr. Stein admitted that in his simulation of the purported “curved” blades, he increased the length of each blade. As shown below right, this is at least because liquid, if driven along curved blades (blue) between two points, undisputedly travels a longer distance than if driven along straight blades (red). (Ex. 3 (12/8/2021 Abraham Rep.), ¶104 (“the straight line is the shortest distance between the two points, while a curved line is not. This is as common sense as it can be”).) Dr. Stein, agrees:

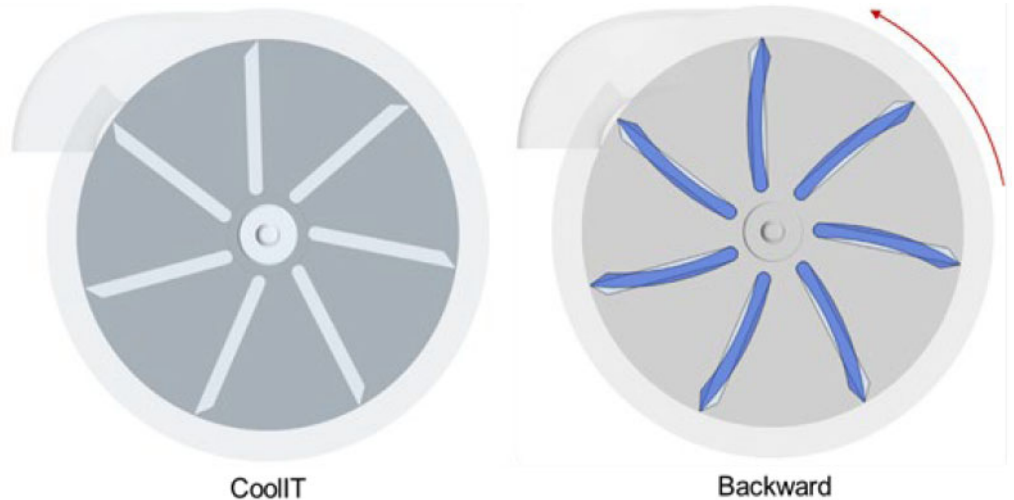


Q. Dr. Stein, if you compare the length of each backward curved blades, would you agree that the length of the backward curved blades is longer than that of CoolIT's blades?

THE WITNESS: They start at pretty much the same point. They end at pretty much the same point. One goes a straight line. The other one curves. Of course, if you go a curved line from point A to B -- and we're not talking about Einsteinian geometries -- then, yes, *the curved line will be slightly longer than the straight one*. It's a triviality. However, *if you make them the same length, they wouldn't reach the circumference; and, therefore, you would have a big clearance. And this will, of course, have a very, very different effect on the results. You need to have the same clearance.*

(Ex. 8 (1/11/2022 Stein Depo. Tr.) at 109:8-110:4 (emphasis added; objection omitted); *see also* Ex. 9 (11/3/2021 Stein Rep.), ¶13 (showing the allegedly equivalent "[b]ackward" curved blades (reproduced below right in blue) are longer in length than the purported CoolIT blades (reproduced below left).) That is, Dr. Stein admitted curved and straight blades would inevitably drive the liquid

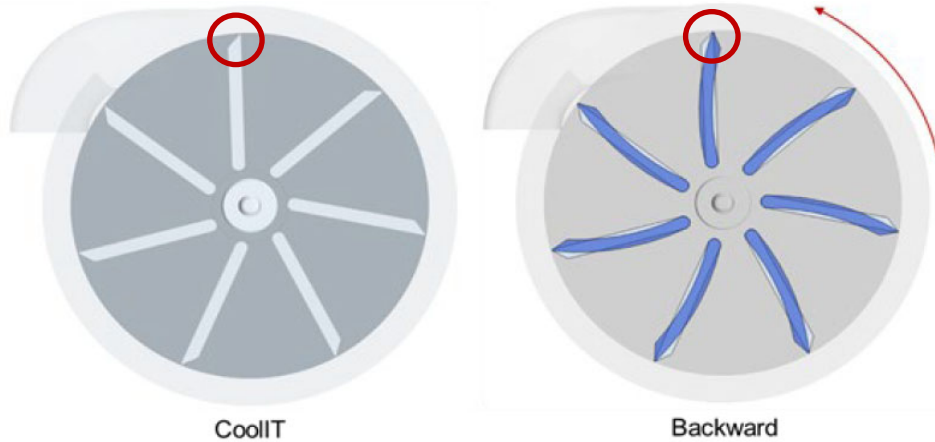
differently: either the liquid must travel a *longer* distance if driven by curved blades than if driven by straight blades, or there will be a "big clearance" that will



"of course, have a very, very *different* effect on the results." (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 109:8-110:4 (emphasis added).) In other words, curved blades and straight blades drive the liquid differently, either in "distance" or in "clearance." Asetek has not provided, nor (as a matter of basic physics) can it provide, any evidence to the contrary.

F. Dr. Stein admitted that, on top of curvature, he flipped the tips of each of the purported equivalent blades

On top of the added length to each blade, Dr. Stein also admittedly flipped the tips of the blades



(as shown in the red circles below), with unknown effects. (See Ex. 8 (1/11/2022 Stein Depo. Tr.) at 109:2-6 (“We constructed a backward curved blade that we believed would have similar properties to the CoolIT blades. It turns out the blades are -- happened to be flipped. But we never started the design process with the CoolIT blade.”).)

G. Dr. Stein also changed the fluid flows into and out of the impeller thereby failing to simulate the real-life flows in the CoolIT device

Dr. Stein’s report shows further differences between the simulated device (below left) and the actual accused CoolIT device (below right) that impact the fluid flows into and out of the impeller.

(Compare Ex. 9

(11/03/2021 Stein Rep.),

¶14 (below left, blue device

having a “[d]omain inlet”

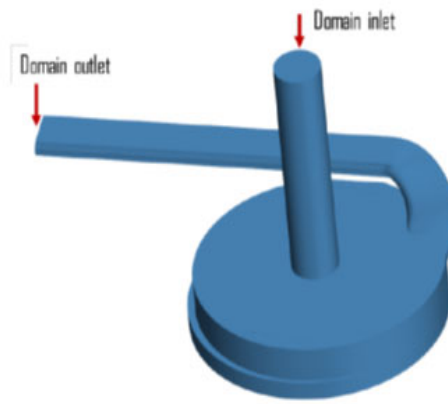
upward extending

vertically and a long

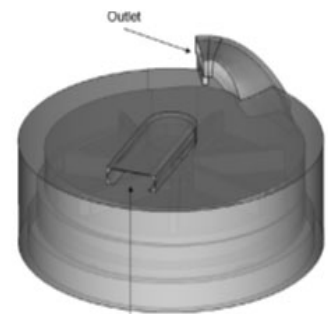
“[d]omain outlet” extended

to the left, admittedly

simulated by Dr. Stein to



Device admittedly simulated
by Asetek’s expert



Accused CoolIT device
according to Asetek’s expert

1 generate the alleged doctrine of equivalents results) *with id.*, ¶12 (right, grey devise with a short,
 2 *horizontal* inlet and a short outlet, understood by Dr. Stein as partially the geometries of CoolIT
 3 products).) For example, the “long, straight inlet ... forces the flow to be both straight and fully
 4 developed.” (Ex. 3 (12/8/2021 Dr. Abraham Rep.), at ¶127.) “Fully developed flow . . . refers to flow
 5 that has passed down a straight pipe so that its velocity is completely in the axial direction and it has
 6 a symmetric velocity profile.” (*Id.*) CoolIT’s “pumps have neither a straight axial flow, nor a fully
 7 developed velocity profile, because of the sharp turn present in CoolIT’s actual product[.]” (*Id.*)

8 In sum, the actual CoolIT products were undisputedly never simulated nor otherwise tested or
 9 analyzed by Asetek’s experts. (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 120:8-9.)

10 III. LEGAL STANDARD

11 A district court is to function as a “gatekeeper” under Fed. R. Evid. 702 to determine whether
 12 a party’s proffered expert testimony is relevant and reliable. *Daubert v. Merrell Dow*
 13 *Pharmaceuticals, Inc.*, 509 U.S. 579, 589-91 (1993). In a patent case, admission of expert testimony
 14 in accordance with *Daubert* follows the law of the circuit in which the district court sits. *See Micro*
 15 *Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390–91 (Fed. Cir. 2003). The Ninth Circuit lists multiple
 16 factors to consider when undertaking this gatekeeping determination, including: “(1) whether a theory
 17 or technique can be (and has been) tested, (2) whether the theory or technique has been subjected to
 18 peer review and publication, (3) the known or potential rate of error, and (4) whether it is generally
 19 accepted in the scientific community.” *Wagner v. Cnty. of Maricopa*, 673 F.3d 977, 989 (9th Cir.
 20 2012) (internal quotations marks omitted) (citing *Daubert*, 509 U.S. at 593–94). Ultimately, the
 21 purpose of the assessment is to exclude speculative or unreliable testimony to ensure accurate,
 22 unbiased decision-making by the trier of fact. *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 157
 23 (1999) (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit
 24 opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.”) (citation
 25 omitted).

26 “[I]n assessing the admissibility of expert testimony under Federal Rule of Evidence 702, the
 27 Court must perform ‘a preliminary assessment of whether the reasoning or methodology underlying
 28 the testimony is scientifically valid and of whether that reasoning or methodology properly can be

1 applied to the facts in issue.” *Siqueiros v. Gen. Motors LLC*, No. 16-cv-07244-EMC, 2022 WL
 2 74182, at *4 (N.D. Cal. Jan. 7, 2022) (Chen, J.) (citation omitted). Expert testimony must be “based
 3 on sufficient facts or data[,]” and the “product of reliable principles and methods ... reliably applied
 4 ... to the facts of the case.” Fed. R. Evid. 702; *see also Novartis Corp. v. Ben Venue Lab’ys, Inc.*, 271
 5 F.3d 1043, 1050 (Fed. Cir. 2001) (affirming summary judgment based on “[the plaintiff’s] *failure to*
 6 *connect the computer model to* [the defendant’s] *commercial process*”) (emphasis added); *J & M*
 7 *Corp. v. Harley-Davidson, Inc.*, 269 F.3d 1360, 1365-66 (Fed. Cir. 2001) (affirming summary
 8 judgment where evidence for infringement by equivalents “was either inadmissible or defective”).

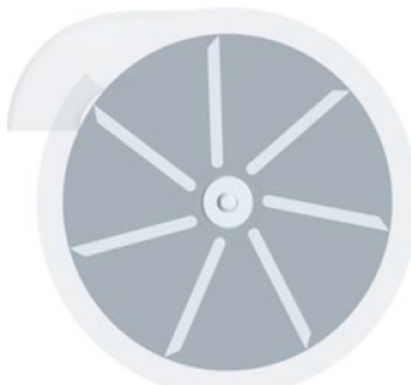
9 IV. ARGUMENT

10 A. Dr. Stein’s opinions based on irrelevant and unreliable simulation results should 11 be excluded

12 1. Dr. Stein admitted he did not simulate CoolIT’s actual impeller

13 Asetek is relying on Dr. Stein’s simulation results to support its doctrine of equivalents theory
 14 against CoolIT’s devices, but Dr. Stein admitted that “[w]e do *not* claim to simulate CoolIT’s device.”
 15 (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 120:8-9 (emphasis added)).

16 The impeller simulated by Dr. Stein (below left)) is demonstratively and indisputably different
 17 from the actual accused CoolIT impeller (below right). (*Compare* Ex. 9 (11/3/2021 Stein Rep.), ¶13
 18 (below left, impeller simulated by Dr. Stein) *with* Ex. 7 (11/3/2021 Tuckerman Infringement Rep.),
 19 ¶310 (below right, annotated photo of actual CoolIT impeller).) As shown, at a minimum, the actual
 20 CoolIT impeller has an opening (annotated in red) alongside each of the seven blades, through which
 21 the liquid can pass, while the
 22 purported “CoolIT” impeller
 23 simulated by Dr. Stein has no
 24 opening alongside any of its
 25 blades. In sum, the fictitious
 26 impeller Dr. Stein simulated,
 27 which is admittedly *different* from
 28 the accused device, tells the Court



Impeller simulated by Dr.
Stein (Asetek’s expert)



Actual CoolIT Impeller
(red annotation added)

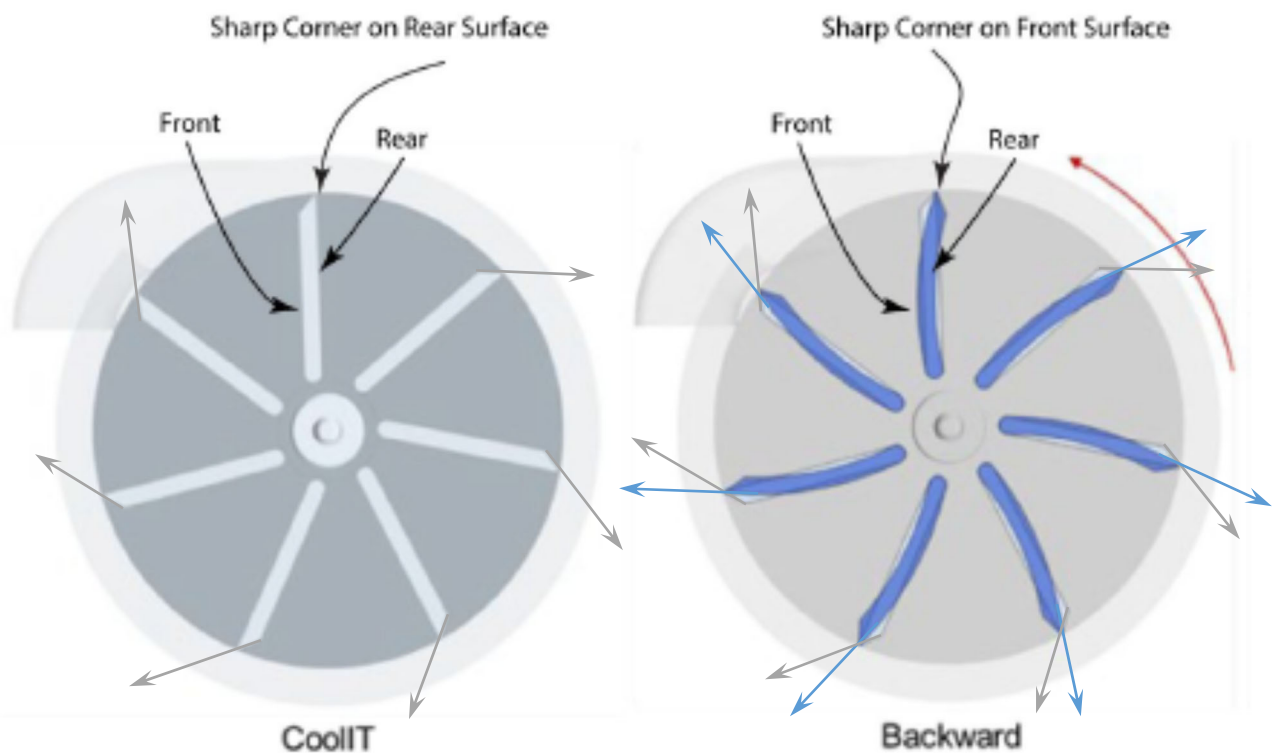
1 *nothing* about how CoolIT’s *actual* impeller works. The simulation is thus completely irrelevant. The
 2 actual CoolIT products were undisputedly never simulated nor otherwise tested by Asetek. (Ex. 8
 3 (1/11/2022 Stein Depo. Tr.) at 120:8-9.) Thus, Dr. Stein’s opinions based on the simulation of a
 4 fictitious, non-CoolIT computer model are irrelevant and unreliable. *See Novartis*, 271 F.3d at 1050
 5 (affirming district court summary judgment order where the plaintiff’s expert had performed a
 6 computer simulation and where “[the plaintiff’s] *failure to connect the computer model to* [the
 7 defendant’s] *commercial process* entitled [the defendant] to summary judgment”) (emphasis added).

8 **2. Dr. Stein admitted the “curved” blades he simulated had additional**
 9 **differences from the CoolIT blades beyond curvature, so the results were**
 10 **contaminated with other effects and are thus unreliable**

11 The only sensible test that can allegedly show adding curvature to a straight blade would
 12 produce insubstantial difference would be one limited to showing *only* the effect of adding curvature
 13 to the alleged CoolIT blades, and nothing else. To that end, Dr. Stein’s testimony is based on an
 14 unreliable methodology since it does not even test the right things. This is because the curved blades
 15 used by Dr. Stein for comparison had far more differences from the alleged CoolIT blades than the
 16 mere addition of curvature. In particular, Dr. Stein’s comparison between the alleged CoolIT blades
 17 and his chosen “curved blades” was contaminated by numerous *other* factors, including at least the
 18 prolonged length of the blades, the inverted blade tips, the removal of openings next to the blades, and
 19 the changes in the inlet and the outlets of the alleged CoolIT device. Thus, Dr. Stein’s testimony based
 20 on his comparison is unreliable and should be excluded in its entirety.

21 Dr. Stein admitted that the “curved blades” he simulated had additional differences from the
 22 alleged CoolIT blades beyond just the addition of curvature to them. Consequently, the simulation
 23 results show the *aggregate* effect of adding other differences *on top of* curvature with unknown effects,
 24 instead of the effect of just adding curvature. For example, he admitted that his simulated “curved”
 25 blades are longer than the alleged CoolIT blades, thus causing the liquid to travel not just in a curved
 26 trajectory alongside the “curved” blades, but also over a longer distance than that of CoolIT’s blades.
 27 (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 109:8-110:4 (“the curved line will be slightly longer than the
 28 straight one. It’s a triviality.”) (emphasis added; objection omitted).) He also flipped the tapered tips
 of the blades, without explaining or otherwise evaluating the effects. (*See id.*, at 109:2-6 (“We

constructed a backward curved blade that ... happened to be flipped.”.) But at least according to Asetek’s own expert, Dr. Tuckerman, flipping the tips, and thus changing the “exit angle at the circumference” of the liquid, is a “main issue on blade performance[.]” (Ex. 10 (12/30/2021 Tuckerman Depo. Tr.) at 41:22-24.) As can be seen below, assuming counter-clockwise rotation as indicated by the curved red arrow at right, the “exit angle at the circumference” of the alleged CoolIT blades (grey arrows) each is significantly different from that of the “backward curved” blades (blue arrows) (Ex. 3 (12/8/2021 Dr. Abraham Rep.), ¶146 (observing the same issue as that pointed out by Dr. Tuckerman: “Dr. Stein actually flipped the blades of the impeller. In the following image, I show that for the cool IT design, the sharp corner of each blade is on the rear surface. However, for each backward blade, the sharp corner is now on the front. ***This is a completely different orientation with the chamfered end facing different directions.***” (emphasis and grey/blue arrows added))):



Thus, Dr. Stein’s comparison between the alleged “CoolIT” blades and the “backward curved” blades is contaminated with effects of other differences mixed in with that caused by just adding the curvature to the blades. (*See id.* (“[W]hat Dr. Stein did was make *multiple* changes to the impeller blades at the same time, making it impossible to determine what changes led to what results”))

(emphasis original).) Dr. Stein’s conclusion that his comparison indicated the alleged “CoolIT” blades and the “curved” blades produced insubstantially different performances could very well have been a result of the other factors, *e.g.*, the fluid traveling a longer distance and exiting at a different angle *cancelling out the effect of the addition of the curvature, masking its significance*. Additionally, Dr. Stein’s use of an unrealistic, long and straight inlet, where fluid flowing into the impeller has a fully developed velocity profile, *further masks the significance of curvature*. (See, *e.g.*, *id.*, ¶127.)

Indeed, when choosing the “curved” blades for comparison, Dr. Stein never considered the other differences possibly contaminating the comparison because he just set out to find *one* out of the “millions, infinite curved blades” to make it perform similarly to the alleged CoolIT impeller. (Ex. 11 (1/12/2022 Stein Depo. Tr.) at 194:12-22 (“[t]he aim was clearly to demonstrate if there existed one” that “would be close to the CoolIT blade.”).) Not surprisingly, Dr. Stein readily admitted that other than the one instance he had cherry-picked, curved blades are likely to behave quite differently from the alleged CoolIT blades in other instances:

Q. Okay. So out of the millions [*sic*] possible curved blades, you chose one of them to make your point in your report; right?

A. Uh-huh.

Q. Please say “Yes” or “No.”

A. Yes.

Q. Okay. And what if I tell you that there are other instances when *the curved blades and the CoolIT blades are behaving quite differently?*

A. I perfectly agree to that statement. *It is perfectly clear that they will behave differently.*

(*Id.* at 200:9-20.) Dr. Stein never addressed the additional factors that could have caused his contaminated comparison to show the purportedly insubstantial differences in the simulated performances, only providing conclusory statements such as “[i]t’s a triviality” (Ex. 8 (1/11/2022 Stein Depo. Tr.) at 109:22-23) or “it is not relevant” (*id.* at 108:10-12). He just cared about finding *one* out of millions of curved impeller blades that might perform similarly to the alleged CoolIT impeller, even if extra changes had to be made, *regardless of how or why the results were allegedly similar*. (*Id.* (“because our aim is [just] to find one blade that acts the same as CoolIT’s blade”).) He simply

provided no explanation whatsoever on if, how, or why the *other factors he admittedly mixed into the simulation* would or would not have significantly impacted the simulation results.

Because Dr. Stein’s simulation of the “curved” blades did not just add curvature (instead, adding length to each blade, flipping the tips of each blade, removing the opening next to each blade, and changing the fluid flows entering and exiting the *non-CoolIT* device), his simulation methodology is unreliable, and fails all four tests under *Wagner*, 673 F.3d at 989. First, Dr. Stein cites no evidence, intrinsic or otherwise, to support his methodology of choosing a “curved” impeller without isolating the effect of just adding curvature to the alleged CoolIT blades—*i.e.*, there is no evidence to show that his methodology has been tested (or even testable). Second, for the same reason, there is no evidence to show his methodology has been subjected to peer review or publication. Third, the error rate is potentially 100% because, as explained above, even Dr. Tuckerman thought the “exit angle at the circumference” of the liquid that Dr. Stein changed by flipping the blades, is a “main issue.” (*See* Ex. 10 (12/30/2021 Tuckerman Depo. Tr.) at 41:22-24; *see also* Ex. 3 (12/8/2021 Dr. Abraham Rep.), ¶146.) This “main issue” as pointed out by Dr. Tuckerman is also compounded with and exacerbated by other problem, such as the longer blades, the removal of openings next to the blades, and the changes in the inlet and the outlets, “making it impossible to determine what changes led to what results.” (*See id.*). And finally, again, Dr. Stein provides no evidence that his methodology of mixing factors in simulation is “generally accepted in the scientific community.” *Wagner*, 673 F.3d at 989. Thus, Dr. Stein’s testimony based on his unreliable methodology of simulation should be excluded.

V. CONCLUSION

Dr. Stein’s opinions are irrelevant and unreliable because he admittedly did not simulate the *actual* accused CoolIT devices. Dr. Stein’s opinions are further unreliable because he did not just add curvature to the accused CoolIT blades, but instead changed numerous other parameters infecting the results of his simulation. Therefore, Dr. Stein’s Impeller Report and his deposition testimony should be excluded in their entirety.

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